

# Russians Leaping Ahead In Science, CIA Reports

## U.S. OFFICIAL WARNS GAP MAY WIDEN

Like To Begin Series  
Of 'Bolster' Talks  
November 13

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[Washington Bureau of The Sun]

Washington, Nov. 1.—The Administration today prepared to reassure the nation of its scientific strength and at the same time released an intelligence report showing Russia is making vast strides in many phases of technology.

The reassurances will come when President Eisenhower makes a speech in Oklahoma City on November 13. His subject: "Science and Security."

This address, the White House said today, is the first of a series Mr. Eisenhower will make in line with his announced intention to bolster the nation's confidence in its economic, defense, foreign and scientific policies.

### More Scientists

In contrast, however, today's release of a report by Dr. Herbert Scoville, Jr., assistant director of the Central Intelligence Agency, was more jolting than bolstering.

Dr. Scoville stated that Russia has 1,500,000 trained scientists, as compared with 1,300,000 in the United States. Moreover, he said, Russian colleges are turning out scientists in greater volume than are American institutions of higher learning.

"The Russians are ahead in terms of total scientific and technical professional manpower," he declared. "If these trends

continue, the situation will get worse before it gets better."

The Scoville report, portions of which were released today, was made October 4 before the Presidents Committee of Scientists and Engineers.

### Forewarned Of Sputnik

It showed that the CIA was aware that the Russians were preparing to launch an earth satellite. In fact, just a few hours before the Soviet sputnik was proclaimed to the world Dr. Scoville told the committee:

"It wouldn't surprise us if such an announcement came at any time. We must be prepared for it. They are capable of doing these things."

The sputnik, according to Dr. Scoville, is just an example of what the Soviets can do.

"They can direct their efforts wherever they want to," he commented. While the Russians were not more "capable" than the United States in the earth-satellite field, he held they probably were "more determined."

Soviet scientific strides, while moving forward "by leaps and bounds" in the military field, also are considerable in peacetime pursuits, the intelligence official said.

He pointed, thus, to television:

"We might believe that TV is a field of United States dominance, but in Moscow alone there are 2,000,000 TV sets. This compares favorably with the situation in this country. The Russian sets are of high quality;

their components are superior to those of our sets. Actual picture performance is better in Russian sets.

However, the cost is considerably higher in Russia. In the last year there has been an attempt to bring down costs and the Russians have cut down on the refinements, but these were nonessentials, such as cabinet, and not things that count. They have maintained the high quality of their sets.

### "Americans Impressed"

"Our visitors were, also impressed by Russian research and the quality of their work in color TV."

On the subject of Soviet military progress, Dr. Scoville pointed to achievements in electronics, communications, atomic energy and intercontinental ballistic missiles.

In electronics, he said, the Russians are satisfying major military requirements and have a good radar system.

### Equipment "Superior"

In communications, he revealed, the Soviet Antarctic equipment was "so superior" to that of the American expedition that there are rumors the Americans used the Soviet system to send messages on occasion.

In atomic energy, Dr. Scoville noted that the Russians had enough trained manpower and equipment to conduct two widely separated atomic test series simultaneously. He pointed out further that in high energy physics the Soviets are making such "tremendous progress" that "they might pass us in this field in the near future."

In the field of intercontinental ballistic missiles, he said, the Soviets are "putting forth tremendous efforts." While the CIA cannot prove whether the Russians actually fired an ICBM in August as they claimed, "they have capacity to fire such a test vehicle if they want."

### "Good Shop Trainings"

Dr. Scoville, in his talk to the President's committee, said the Soviet educational system is an "excellent one for the production of good, competent engineering and scientific personnel."

He explained that for the past several years the high school level made on the high school level to get students interested in

technical studies. There is good shop training and pupils are given tours of industry. While this emphasis on practical training is not harming scientific study, he added, such humanities subjects as history and literature are being weakened.

The Soviets, Dr. Scoville went on, operate a ten-year schooling system (as contrasted to twelve years in most of the United States.) Since practically all students go this far with their schooling, many are prepared for technical jobs immediately following graduation.

For these with college in mind, a two-year interim stint in industry is being encouraged.

### "Greater Maturity"

"This has the additional advantage of giving students in the higher educational institutions a greater maturity and a better feeling for the application of the principles they are learning in the classroom," the official declared.

In addition, the Soviets are pushing scientific knowledge through extension courses, a broadening of the engineering specialties, a streamlining of textbooks, educational exchange programs with Communist bloc nations and by holding down the number of students per teacher.

### Quality Improvement Seen

Dr. Scoville even saw Soviet scientific progress in the new Russian plan to decentralize industry. It will mean, he said, that the quality of education and research will be improved in outlying regions.

He closed his talk with the warning that the "Soviets are capable of great accomplishments both in peacetime and wartime."

"In view of the dynamic drive of their entire scientific program, we must expect further revolutionary developments in addition to the first satellite launching."

While the President's committee was in the process of releasing this report today, Mr. Eisenhower however himself met with his Cabinet for nearly two hours. The missile race with Russia was believed to be on the agenda.

From a continuing series of conferences at the White House, it is believed that Mr. Eisenhower will base his Oklahoma City speech.